

EXHIBIT GG

CURRICULUM VITAE

Name: James Lawrence Mulshine

Date and Place of Birth: November 14, 1952; Elizabeth, New Jersey

Citizenship: United States

Marital Status: Wife: Pamela Moles Mulshine, M.D.
Daughters: Christine and Laura
Sons: Michael and Eric

Education: B.A., College of the Holy Cross 1974
M.D., Loyola Stritch School of Medicine 1977

Board Certification: Diplomat, American Board of Internal Medicine 1980
Diplomat, American Board of Medical Oncology 1983

Licensed to Practice Medicine: Illinois

Employment:

1977 - 1979	Fellow, Internal Medicine, Cleveland Clinic Foundation
1979 - 1980	Senior Medical Resident, Cleveland Clinic Foundation
1980 - 1982	Clinical/Research Associate, Medicine Branch, National Cancer Institute
1982 - 1987	Investigator, NCI-Navy Medical Oncology Branch
1987 - 1988	Senior Investigator, NCI-Navy Medical Oncology Branch
1988 - 1990	Head, Biotherapy Section, NCI-Navy Medical Oncology Branch
1991 - 1995	Chief, Biomarkers & Prevention Research Branch, DCPC
1991 - 1995	Head, Intervention Section, DCPC
1995- 2005	Head, Intervention Section, Cell and Cancer Biology Department, Medicine Branch, Division of Clinical Sciences
2001-2005	Co-Chair, Upper Aerodigestive Faculty, Center for Cancer Research, NCI
2005-	Associate Provost for Research, Rush University Medical School
2005-	Vice President for Research, Rush University Medical Center

Uniform Service:

1980-2000 - United States Public Health Service, Current Rank - Medical Director (Retired)

Society Affiliation:

Fellow, American College of Physicians
Member, American Society of Clinical Oncology
Member, American Association of Cancer Research
Member, International Association for the Study of Lung Cancer

Honors and Academic Awards:

Connecticut State Scholar
United States Department of Commerce "Inventors Incentive Award", 1984
Outstanding Service Medal, Public Health Service, 1990
Unit Commendation, Public Health Service, 1991
Alpha Omega Alpha, Epsilon Chapter, Loyola University, 1991
Saccomanno Memorial Lectureship, 1992
National Cancer Institute Technology Transfer Award, 1996
National Institute of Health Director's Award, 1998
Visiting Professor, Tokyo Medical University, 2003-2006
Plenary Lecture, Thomas Petty Symposium, Denver, CO, 2006
IASLC Joseph Cullen Award for life-time scientific achievements in lung cancer prevention research, IASLC World Conference, Seoul, Korea, 2007
Plenary Lecture, Shizuoka Cancer Conference, Shizuoka, Japan 2008
Melissa Lumberg Zagon Research Award for Significant Contributions to Lung Cancer Research, Lungevity Foundation, Chicago, Illinois, November, 2010

Patents:

- 1) Monoclonal Antibody against Non-Small Cell Lung Cancer, U.S. Patent No. 4,569,788
- 2) Intrabronchial Injection of Monoclonal Antibody Conjugates for the Detection of Lung Cancer, U.S. Patent No. 4,911,690
- 3) Technique for Early Detection of Lung Cancer, U.S. Patent No. 5,455,159
- 4) Lipxygenase as a target for treatment and prevention of epithelial cancer, U.S. Patent No. 6,071,949
- 5) An Epithelial Protein and DNA thereof for use in early cancer detection. U. S. Patent No. 5,994,062
- 6) Divisional Filing: An Epithelial Protein and DNA thereof for use in early cancer detection. U. S. Patent No. 6,251,586 March, 1999.
- 7) Australian Patent 22722/95 PCT WO95/24894. Use of lipxygenase inhibitors as anti cancer therapeutics and intervention inhibitors
- 8) Patent submitted CIP: Application Number 60/187,539 Retinoid formulation for aerosolization
- 9) WO/2001066104 Retinoid formulation for aerosolization and inhalation
- 10) Method for diagnosing cancer or precancer based on hnRNP protein expression. U.S. patent 6,500,625, Issued 12/31/02.
- 11) Use of Lipxygenase Inhibitors and PPAR Ligands as Anti Cancer Therapeutics and Intervention Agents. U.S. Patent No. 6,756,399
- 12) Use of Differential Oblique Angle Spectroscopy of Oral Epithelium, U.S. Patent No. 6,990,369

Research Interests:

Clinical Trials Non-Small Cell Lung Cancer
Tumor Immunology (Diagnostic or Therapeutic Applications of Monoclonal Antibodies)
Growth Factor Effects in Human Lung Cancer
Information Systems
Early Cancer Detection and Cancer Intervention Research
Research Facility Design and Construction

Professional Address: 1735 W. Harrison Street, Chicago, IL 60612

Telephone/FAX: (312) 942-3589/(312) 942-3593

E-MAIL: James_L_Mulshine@rush.edu

Activities:

CLEVELAND CLINIC FOUNDATION:

1978-1980 Member, Patient Care Committee
1979-1980 Member, House Staff Committee
1980 Internal Medicine House Staff Selection Committee

NATIONAL CANCER INSTITUTE:

1983-1985 Member, Committee for Protection of Human Subjects, Naval Hospital, Bethesda
1983 Lung Cancer Consultant, State-of-the-Art Information Patient Data Query, NCI
1984 Member, NCI Lung Cancer Discovery Group
1985 Consultant, Report of NCI Scientific Board, Biomarkers in the Diagnosis of Lung Cancer
1985 Member Source Evaluation Group, NCI 37613-18 (MAO 31)
1985 Member Source Evaluation Group, Preclinical Screen of Monoclonal Antibodies
1985-1990 NCI Investigational Research Sub Panel
1986-1990 Acting Chairman, NCI Investigational Research Panel
1986 Member, Decision Network Committee of Biological Response Modifiers Program
1986 Member, Program Committee, American Society of Clinical Oncology
1986 Member, Source Evaluation Group, NCI-CM-67873-18 (Bulk Production of MoAbs)
1986 Member, Program Committee International Association for the Study of Lung Cancer Fifth World Conference), Interlaken, Switzerland
1987 Planning Committee, Second International Workshop on Small Cell Lung CA Antigens
1988 Ex-officio participant, Experimental Therapeutic Study Section, National Cancer Institute
1989 Member, Local Arrangements Committee, American Society Clinical Oncology
1990 Member, Ad hoc Committee for Membership, American Association Cancer Research
1990 Member, Program Committee International Association for the Study of Lung Cancer (Sixth World Conference), Melbourne, Australia
1990 Planning Committee, Second International Workshop on Lung CA Differential Antigens
1991 Co-Organizer, UCLA Symposium Cellular and Molecular Biology of Upper Aerodigestive System, Steamboat Springs, Colorado
1991 Co-Chair, Division of Cancer Diagnosis, Biology and Centers, Organ Systems Workshop Innovative Early Detection and Intervention Approaches for Lung CA, Annapolis, MD
1992 Member, Program Committee, International Association for the Study of Lung Cancer (Seventh World Conference), Colorado Springs, Colorado
1992 Early Detection of Cancer Workshop: Challenge for Molecular Biology, Division of Cancer Prevention and Control, Organizing Committee
1993 Member, Program Committee, Second International Cancer Chemoprevention Conference, Berlin, Germany
1993 American Society of Clinical Oncology, Prevention Committee
1993 Organizer, IASLC Workshop on Primary and Secondary Lung Cancer Prevention, Potomac,

Maryland

1993 Participant, NCI Chemoprevention Working Group

1994 Member, Scientific Advisory Panel, European Lung Cancer Centre, Liverpool, England

1994 Member, Review Committee - European Oncology Research and Training Commission, Prevention Trial, Amsterdam, Netherlands

1995 Member, Source Evaluation Group for Phase I/II Chemoprevention Contracts

1996 Co-organizer, IASLC Workshop on Primary and Secondary Prevention, Copenhagen, Denmark

1996 Scientific Committee and Co-organizer, IASLC/INSERM Workshop on Biological Basis of Lung Cancer Prevention, Nancy France

1996 Ad hoc Grant Review Israel Science Foundation

1996 Member, Program Committee, International Association for the Study of Lung Cancer (Eighth World Conference), Dublin Ireland, 1997

1997 Chair and Co-Organizer Workshop on Future of Integrated Early Lung Cancer Management, Roy Castle Lung Cancer Foundation, Liverpool, UK

1997 Advisory Council on Optical Imaging Technology, U.S. Public Health Service, Office on Women's Health, Assistant Secretary, DHHS

1997 Study Section, Cancer Research Foundation of America

1997 Awards Committee, American Cancer Society Award, American Association of Cancer Research

1997 NIH, FDA and AIA Working Group on Guidelines for Biomedical Research Facilities

1997 Member, Program Committee, International Association for the Study of Lung Cancer (Ninth World Conference), Tokyo, Japan, 2000

1998 Planning Group for Clinical Trials, March for Cancer, Washington D.C.

1998 Clinical Trials Summit for Cancer March, July 15, 1998, Washington, D.C.

1998 Member, National Institutes for Health, Collaborative Research and Development Subcommittee, Office of Technology Transfer, Office of the Director, National Institutes of Health

1998 Site Visitor, Cancer Research Campaign, University College, London, U. K.

1999 Membership Development Committee, American Association of Cancer Research

1999 Clinical Trials Summit for Cancer March, Oct 27, Washington, D.C.

1999 Co-chair, Castle Foundation Workshop on Molecular Detection of Lung Cancer, October 15-17, Liverpool, U. K.

1999 Participant, ACS-UICC Consensus Meeting of Biomarkers as Intermediate Endpoints. Nov 13-15, Divonne, France.

1999 Consultant, Searle, Pfizer Chemoprevention Advisory Panel, November 19, 1999. Washington DC.

2000 Breakout Chair, Second International Conference on Screening for Lung Cancer, February 25-27, Cornell University, New York, NY

2000 Organizer, Symposium: Reducing Lung Cancer Mortality: Action for the New Millennium, Sponsored by Cancer Research Foundation of America and Roy Castle Lung Cancer Foundation, Washington D.C., June 22.

2000 Organizer, Co-Chair, Fourth International Prevention Workshop, Reykjavik, Iceland, August, 2001

2001 Study Section Member, National Cancer Institute Subcommittee E Cancer Epidemiology, Prevention and Control GRB-F (K9)

2000 Vice Chair, Membership Development Committee, American Assoc of Cancer Research

2001 Participant, CRFA Chemoprevention Working Group, November 16, 17th, Wash DC.

- 2001 Member, Career Development Awards in Cancer Research Committee, American Association of Cancer Research
- 2001 Participant, Early Lung Cancer Screening Workshop, NCI/ACS, Rockville, MD, March 7/8.
- 2001 Participant, NCI Progress Review Group Lung Cancer Meeting, Chantilly, VA, May 24, 2001
- 2001 Participant, NCI CTEP, State-of-the-Science Meeting. Innovative Approaches to the Management of CT-detected Small Volume Lung Cancer, Bethesda, MD, June 19, 2001.
- 2001 Participant, Cancer Research Foundation of America Chemoprevention Working Group, November 16-7, 2001. Washington DC.
- 2002 Participant, Fourth Meeting to further European / US Spiral CT collaborations into Early Lung Cancer Detection Studies, 18th-20th January 2002, ICRF, London, UK
- 2002- Co-chair, Aerodigestive Research Faculty, Center for Cancer Research, Natl Cancer Inst
- 2002 Organizing Committee, Fifth International Society for the Study of Lung Cancer Prevention Workshop Organizing Committee, March 14-6th, 2002, Torino, Italy.
- 2002 Participant, National Dialogue on Cancer, Forum on Optimizing the Discovery and Development of Genomic/Proteomic-Based Cancer Drugs, March 1-2, 2002, Washington D.C. and Meeting II (Global Strategy Working Group) March 5-7, 2003.
- 2002 Chair, Membership Development Committee, American Assoc of Cancer Research
- 2002 Member, Prevention Committee, American Society of Clinical Oncology
- 2002- Member, NIH CRADA Policy Working Group
- 2003- Nominating Committee, International Association for the Study of Lung Cancer
- 2003 External Referee, Cancer Research UK Grant Review Process
- 2003- Participant, Nat'l Dialogue on Cancer Primary Prevention and Early Detection Summit, Atlanta, Georgia, Sept 18.
- 2003 Member, Organizing Committee, International Association for the Study of Lung Cancer (Eleventh World Conference), Barcelona, Spain, 2004.
- 2003- SPORE Working Group, Chair Biomarker Review Committee
- 2003-6 Member, American Association of Cancer Research Prevention Task Force
- 2003- Chair, Nominating Committee, International Association for Study of Lung Cancer
- 2003- Co-Chair Grant Review Committee, Cancer Research and Prevention Foundation
- 2003-2004 Organizer, Cancer Research and Prevention Foundation Workshop: Application of High Resolution CT Imaging Data to Lung Cancer Drug Development, Washington, DC - April 15-16, 2004.
- 2004 Co-Chair, Biomarker II Session, 12th SPORE Investigators' Workshop, Baltimore, MD
- 2004 Member, AACR Awards Committee
- 2005 Participant, NCI/FDA Workshop: Strategies to Integrate Biomarkers into Cancer Clinical Trials Feb 2-4, Houston, TX
- 2005 Organizer, Cancer Research and Prevention Foundation Workshop: Application of High Resolution CT Imaging Data to Lung Cancer Drug Development, Annapolis, MD, April 28-29.
- 2005 Co-Chair, Biomarker Session, Intramural Facilitator for Lung Cancer 13th SPORE Investigators' Workshop, Washington DC

RUSH UNIVERSITY MEDICAL CENTER:

- 2005- Chair, Intellectual Property Committee

2005- Member, Management Committee Meeting
2005- Member, Rush Medical College Dean's Council
2005- Rush Corporate Compliance Committee
2005- Rush Computer Prioritization Committee
2006- Member, Executive Recruitment Committee
2006- Provost Council
2006- Director, Rush Translational Research Consortium
2006 Organizer, Cancer Research and Prevention Foundation Workshop: Application of High Resolution CT Imaging Data to Lung Cancer Drug Development, Bethesda, MD, April.
2006 Participant, ASCOs Lung Cancer Think Tank, ASCOs 42nd Annual Meeting, Atlanta, GA, June 6.
2007- Member, University of Chicago CTSA External Advisory Committee
2007 Member, Organizing Committee, International Association for the Study of Lung Cancer (Twelfth World Conference), Seoul, Korea.
2007 Organizer, Cancer Research and Prevention Foundation Workshop: Application of High Resolution CT Imaging Data to Lung Cancer Drug Development, Oak Brook, IL, April.
2008 Member, Program Committee for the 2008 Chicago Multidisciplinary Symposium in Thoracic Oncology, November 13-15.
2008 Member, Organizing Committee, 2008 International Lung Cancer Conference, Liverpool, July 9-12.
2009 Member, Core Program Committee, IASLC 13th World Conference on Lung Cancer, San Francisco, CA July 31- August 4.
2009 Member, Executive Leadership Committee, RUSH
2011 Organizer, Prevent Cancer Foundation Workshop: Application of Quantitative CT Imaging Data to Early Lung Cancer Management (Workshop VIII), Bethesda, MD, May 2/3.
2011 Member, Organizing Committee, International Association for the Study of Lung Cancer (Fourteenth World Conference on Lung Cancer), Amsterdam, Netherlands.
2011 Co-organizer IASLC Workshop, Early Lung Cancer Detection, Amsterdam, Netherlands

Scientific and Foundation Boards and Other Advisory Positions:

- European Lung Cancer Centre, Chair, Scientific Advisory Panel, Roy Castle Lung Cancer Research Foundation, Liverpool, England, 1994-
- Alliance for Lung Cancer Advocacy, Support and Education, Liaison Board Member, Vancouver Washington, 1997-2004
- Consultant to the Board of Directors, Karamanos Cancer Center, Detroit, MI, 1998
- Cancer Research Foundations of America, Scientific Liaison to the Board, Alexandria, VA, 1998-2005
- Consultant, Genometrix/Baylor P0-1 on Clinical Application of Biochips, Woodlands, TX, 1/1998
- Consultant, Cornell-Columbia PO1 on Lung Cancer Screening, NY, NY, 1/2000,
- Consultant, UCLA Lung Cancer SPORE, Chemoprevention, 4/2000
- Chairman, Scientific Review Panel. R. Duffy Wall Biology, Education, Chemoprevention, Screening and Treatment Lung Cancer Program (BECST, TARGET) M.D. Anderson Cancer Center, Houston, TX, 2000-
- Scientific Board, International Early Lung Cancer Awareness Project, Cornell University, NY, NY 2001
- Chair, Site Visit, Roy Castle Foundation, Liverpool, United Kingdom, May 30 & 31, 2002
- Participant, American Association Cancer Research Strategic Think Tank, Miami, FL, Jan 19-21, 2003
- Participant, Women, Tobacco and Cancer: An Agenda for the 21st Century, Houston, TX Feb 3-5, 2003
- Consultant, Pharmacia/Pfizer, Developing COX-2 Strategies for Lung Cancer, NYC, March 28, 2003

- Consultant, SYNARC Oncology Advisory Committee, San Francisco, CA, June, 2003
- Board Member, Lung Cancer Alliance, (Formerly Alliance for Lung Cancer Advocacy), 2004-
- Co-Chair, Scientific Review Panel, Prevent Cancer Foundation, 2004-
- Board Member, Prevent Cancer Foundation, 2005-
- Chair, Vital and Prospect EAB, MD Anderson University, Houston, TX March 27. 2008
- Member, External Advisory Board, University of Chicago, Feb, 2008-
- Member, Gene Express Scientific Advisory Board, March 2008-
- Member, Savara Advisory Board
- Member, Council on Medical Service, Illinois State Medical Society, July 2008
- Member Board of Directors, Chicago Technology Park Corporation
- Member, Public Health Committee, The Chicago Medical Society, January, 2009.
- ASCO Smoking Subcommittee Member, 2009
- IASLC Prevention Committee, 2009
- ASCO Prevention Committee, 2010
- Medical Advisory Board, Bonnie J Addario Lung Cancer Foundation, San Francisco, CA, 2011
- Scientific Advisory Board, Biodesign Center, Arizona State University, 2011
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Editorial Boards:

Yearbook of Pulmonary Disease	1989-1991
Contemporary Oncology	1992-1995
Clinical Cancer Research	1994-
Cancer Prevention International	1994-2000
Lung Cancer Frontiers	1996-
International Journal of Oncology	1996-
Lung Cancer	1996-2001
Primary Care and Cancer	1998-2001
Cancer Today	2001-
Oncology	2002-
Cure	2002-
Cancer Prevention Research	2008-
Journal of Oncology	2008-
The ASCO Post	2010-

Editorial Review:

International Journal of Radiation Oncology	Cancer Research
Biology Physics Cancer Research	Clinical Cancer Research
Journal of the National Cancer Institute	Journal of Clinical Investigations
Journal of Clinical Oncology	British Journal of Cancer
Blood	Critical Reviews in Toxicology
Cancer	Lung Cancer
Cancer Investigation	European Journal of Cancer
New England Journal of Medicine	Environmental Health Perspectives
Nature Medicine	Carcinogenesis

Protocol Investigation:

Principal Investigator

NCI-Navy MOB 83-15 Treatment of Non-Small Cell Lung Cancer Based on In Vitro Drug Selection

BPRB Preliminary Comparison of Positron Emission Tomography with histology and Mammography as an Early Breast Cancer Approach

NCI-Navy MOB 84-2 Treatment of Tumor Imaging in Patients IND-BB-1881 Metastatic Non-Small Cell Lung Cancer with KC-4, KC-3, KC-4 (CC# 84-C-124)

NCI-Navy MOB 85-1 Imaging of Chronic Lymphocytic Leukemia and CTCL (CC# 82-C-721) Patients with Indium labeled T101 (CC# 82-C-52) T101 Imaging Study

NCI-Navy MOB 85-4 Treatment and Imaging with Monoclonal Antibody Directed against GRP

Medicine Branch Randomized, Placebo-Control Trial of a Cyclooxygenase Inhibitor in Oral Cavity Leukoplakia (Clinical Center 98-C-0118)

Co-Chairman

ECOG Est 1584 Immunohistochemical Analysis of Lung Cancer

LCSG 862 Immunohistochemical Analysis of Lung Cancer

LCSG 891/BPRB Early Detection of Second Primary Lung Cancers

Chiron/Bayer CRADA Early Detection of Second Primary Lung Cancers

Associate Investigator

NCI-Navy MOB 86-2 Therapy of Chronic Lymphocytic Leukemia and CTCL Patients with Radiolabeled T101

NCI-Navy MOB 96 Pilot Study of the Correlation between the Findings of Atypical/Malignant Cell in Sputum and Fluorescence Bronchoscopy in Patients at Risk for Lung Cancer in a Multi-Centered Study

Surgery Branch Phase I Clinical Pharmacological Study of Inhaled Doxorubicin in adults with advanced solid tumors affecting the lungs.

U Nebraska Statewide lung cancer screening demonstration project

Rush University Pilot CT-based Lung Cancer Screening Trial in a High Risk Cohort
A Phase II Open-Label Multi-center Study to Evaluate the Safety and Efficacy of
Pazopanib as Neoadjuvant Therapy in Treatment Naive Subjects with Sage IA,
IB,
IIA or IIB (to T2) Resectable NSCLC. (Glaxo sponsored trial - VEG105290)

Rush University CT-based pilot Lung Cancer Screening Trial

Grants and CRADAs

- Co-Principal Investigator, Mathers Foundation (\$604,300.00)
- Co-Principal Investigator, Hybritech, Inc (\$400,000.00)
- Principal Investigator, Mathers Foundation (\$491,340.00)
- Co-Principal Investigator, Early Lung Cancer Detection Collaborative Research and Development Agreement, Abbott Labs (\$1,100,000)
- Co-Principal Investigator NIH CRADA: Lung Cancer Early Detection Working Group With Johns Hopkins and Chiron Diagnostics (\$3,100,000)
- Co-Principal Investigator NIH CRADA for Aerosolized Chemoprevention Delivery With Battelle
- Principal Investigator, Clinical Trials Agreement for Oral Cancer Chemoprevention, Procter and Gamble, Inc
- Principal Investigator, NIH CRADA Aerosolized Contrast Material with IMCOR

Howard Hughes Research Trainees:

Sadhana Jackson 1998-99

Post Doctoral Fellows:

Mark Browning, M.D.	1983- 1984
Naval Hospital, San Diego	
Philip Kasprzyk, Ph.D.	1985-1989
Biomeasure, Inc.	
Anthony M. Treston, Ph.D.	1985-1991
BPRB, NCI	
Yoichi Nakanishi, M.D.	1986-1989
Kyushu University	
Frank Scott Ph.D.	1990-1996
BPRB, NCI	
Jun Zhou, M.D.	1993-1997
BPRB, NCI	
Song Hong, Ph.D.	1996-
BPRB, NCI	
Ilda McKenna, Ph.D.	1997-1998
Dept of Energy	
Yan-gao Man, Ph.D.	1998-1999
Intervention Section	

Jordi Tordi-Viallet	2000-2005
Intervention Section	
Anatoly Mayburd, PhD	2002-2005
Intervention Section	

Doctoral Candidate:

Mary Jane Welch	2006-2007
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SABBITICAL GUEST:

Ronald Natale, M.D.	1989-1990
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Mentoring:

Kenneth Tuman, MD	Dept of Anesthesiology, Rush University Medical Center
Katherine L Griem, MD	Dept of Radiation Oncology, Rush University Medical Center

Invited Academic Presentations:

- Treatment of Lung Cancer. Grand Rounds, D.C. General, 05/30/84.
- New Approach in the Treatment of Non-Small Cell Lung Cancer. Grand Rounds, Howard University, Clinical Center Research Lecture, 09/13/84.
- Applications of Monoclonal Antibodies in the Study of Human Lung Cancer. Fox Chase, Philadelphia, PA, 09/13/84.
- Approaches to Non-Small Cell Lung Cancer. Bethesda Medical Grand Rounds, Naval Hospital, Bethesda, MD, 09/23/84.
- Recent Advances in the Treatment and Biology of Lung Cancer (Monoclonal Antibodies). NIH Clinical Center Conference, Bethesda, MD, 09/28/84.
- Symposium on Innovative Therapy of Lung Cancer with Monoclonal Antibodies. IV World Conference on Lung Cancer, Toronto, Canada, 08/25/85.
- Clinical Application of Monoclonal Antibodies in the Treatment of Small Cell Lung Cancer. Duke University Oncology Seminar, Durham, NC, 11/05/85.
- Rational Application of Monoclonal Antibodies in Therapy of Lung Cancer. Ontario Cancer Foundation, Ottawa, Canada, 10/07/86.
- Consideration in Development of Monoclonal Antibody for Clinical Trials. Oncology Grand Rounds, Wayne State University Medical Center, Detroit, MI, 10/08/86.
- Therapeutic Strategies for Interference with Autocrine Growth Factors. Grand Rounds, University of Maryland Cancer Center, Baltimore, MD. 03/20/87.
- New Directions in Lung Cancer Therapy. Lung Cancer Program Conference, Albert Einstein Medical Center, Philadelphia, PA, 03/09/87.
- Applications of Growth Factor Biology in the Therapy of Lung Cancer. Oncology Grand Rounds, Wayne State University Medical Center, Detroit, MI, 04/01/87.
- Applications of Cell Culture in the Treatment of Lung Cancer. Fifth Annual Uniform Services University of the Health Sciences Cardiothoracic Surgery Symposium, Bethesda, MD, 04/01/87.
- Small Cell Lung Cancer Antigens Considerations in the Development of Clinical Trials Using

Monoclonal Antibodies. First International Workshop, London, England, 03/29/87.

- Applications of Growth Factor Biology in the Therapy of Human Cancer. American Society of Clinical Oncology, Educational Symposium, Atlanta, GA, 05/17/87.
- XII Growth Factors and Oncogenes-Structure, Function, and Clinical Implications, Interference with Autocrine Loops as a Therapeutic Modality. Sjudaröden, Sigtuna, Sweden, 09/07/87.
- Clinical Use of a Monoclonal Antibody to Bombesin-Like Peptides in Patients with Lung Cancer. First International Symposium of Bombesin-Like Peptides, Rome, Italy, 10/87.
- In Vitro Based Therapy Selection for Non-Small Cell Lung Cancer. International Association for the Study of Lung Cancer Non-Small Lung Cancer Workshop, Key Biscayne, FL, 11/09/87.
- New Therapy Approaches to Small Cell Lung Cancer. Michigan State Medical Society, Detroit, MI, 11/11/87.
- Selection of Antibodies for the Diagnosis and Treatment of Lung Cancer In Vivo Diagnosis and Therapy of Human Tumors with Monoclonal Antibodies. Naples, Italy, 03/18/88.
- In Vitro Studies of Growth Factor Activity in Small Cell Lung Cancer. Grand Rounds, University of Maryland Cancer Center, 04/22/88.
- Therapeutic Application of Growth Factors in the Therapy of Lung Cancer Growth Factor and One Gene Symposium. Fifth World Conference on Lung Cancer, Interlocken, Switzerland, 09/02/88.
- Early Detection of Lung Cancer. National Cancer Advisory Board, Bethesda, MD, 09/26/88.
- Monoclonal Antibodies in the Diagnosis of Cancer. Third Annual Kenneth B. Olson Oncology Symposium, Albany Medical College, Albany, NY, 10/27/88.
- Clinical Significance of Tumor Markers, Chemosensitivity and Drug Discovery. Symposium of Treatment of Advanced Non-Small Cell Lung Cancer, Rush-Presbyterian St. Luke's Medical Center, Chicago, IL, 11/01/88.
- Application of Differentiation Markers for the Early Detection of Lung Cancer. Division of Cancer Prevention and Control Colloquium, Rockville, MD, 12/16/88.
- Rationally Based Treatments of Lung Cancer. Roger Williams Cancer Center, Providence, RI, 03/28/89.
- Innovative Approaches to the Treatment of Lung Cancer. NIH Clinical Center Grand Rounds, Bethesda, MD, 04/12/89.
- New Strategies for the Early Detection of Lung Cancer. National Cancer Institute Grand Rounds, Bethesda, MD, 04/12/89.
- Cancer Detection and Diagnosis. Knight Center for Specialized Journalism, Symposium of Cancer, University of Maryland, College Park, MD, 10/13/89.
- Clinical Application of Lung Cancer Biology: Toward the Year 2000, Symposium V. Fox Chase Cancer Center, Philadelphia, PA, 10/14/89.
- Rational Approaches in Non-Small Cell Lung Cancer. Cancer Center Grand Rounds, The Johns Hopkins Cancer Center, 02/13/90.
- Biologically Based Approaches to Lung Cancer Prevention and Early Detection. Grand Rounds, M.D. Anderson Cancer Center, Houston, TX, 05/01/90.
- Bronchial Epithelial Changes in the Early Detection of Lung Cancer. Keynote address, Japanese Bronchology Society, Fukuoka, Kyushu, Japan, 06/01/90.
- Process for Driving the Induction Progression and Metastasis of Human Lung Cancer. FASEB Workshop, Saxton River, VT, 07/02/90.
- Clinical Application of Growth Factors in the Diagnosis and Treatment of Small Cell Lung Cancer. IASLC Workshop, Cambridge, England, 08/07/90.

- Clinical Application of Growth Factor Research in Lung Cancer. Symposium 1990, Canada Royal College of Physicians & Surgeons Annual Meeting and Guest Lecture, Princess Margaret, Toronto, Canada, 09/13-14/90.
- Modulation of Oncogene Growth Factors in Carcinogenesis. The Golden Jubilee Cancer Prevention Conference, M.D. Anderson Cancer Center, Houston, TX, 02/21/91.
- Biology of and Novel Therapeutic Approaches for Epithelial Cancers of the Aerodigestive Tract, Strategies for Early Diagnosis and Therapy. Keystone Conference, Steamboat Springs, CO, 04/01/91.
- Overview of Lung Cancer Early Detection and Intervention Issues, Division of Cancer Biology, Diagnosis and Centers Workshop, Annapolis, MD, 04/21/91.
- Candidate Biomarkers for Application as Intermediate End-Points of Lung Carcinogenesis. Keystone Conference, Colorado, 10/05/91.
- Mid-Atlantic Cancer Research Foundation, New Approaches to Early Detection of Breast Cancer, Syracuse, New York, 11/07/91.
- The Issues Related to Integrating Surrogate End Points. 20th Annual Meeting of the American College of Clinical Pharmacology, Atlanta, GA, 10/16/91.
- Strategies for Rational Intervention for Early Lung Cancer. 16th International Meeting of the International Association for the Study of Lung Cancer, Melbourne, Australia, 11/08-15/91.
- Eastern Cooperative Oncology Group, Chemoprevention Strategies and Intermediate Markers for Lung Cancer Trials, University of Southern California, Los Angeles, California, 1/27-31/92.
- Second IASLC Workshop on Combined Radiotherapy and Chemotherapy Modalities in Lung Cancer, Integrated Clinical and Basic Studies Related to Circumventing Non-Small Cell Lung Cancer Drug Resistance, La Fontainebleu, France, 06/07-14/92.
- Annual Geno Saccomanno Memorial Lectureship. New Approaches to Early Lung Cancer Detection. Grand Junction Colorado, 09/92.
- Clinical Center Grand Rounds, Early Intervention in Lung Cancer, NIH Clinical Center, Bethesda, Maryland, 09/2/92.
- American Cancer Society Annual Science Meeting, Plenary Session, Scientific Basis for Cancer Prevention: Intermediate Cancer Markers, Chicago, Illinois, 09/10-12/92.
- General Motors Cancer Research Foundation, Annual Scientific Meeting, Biomarkers and Lung Cancer Prevention, Boston, Massachusetts, 09/22/92.
- Malnoti Symposium, Identifying Relevant Biomarkers for the Evaluation of Chemopreventive Agents, Northwestern University Medical School, Chicago, Illinois, 10/22-24/92.
- Cleveland Clinic Foundation Internal Medicine Grand Rounds, Cleveland Clinic Foundation, Cleveland, Ohio 11/05/92.
- UCLA Symposium on Advances in the Diagnosis and Treatment of Lung Cancer, Evolving Strategies for the Early Detection and Intervention of Lung Cancer, Los Angeles, CA, 12/04/92.
- The Thoracic Society R.O.C. Advances in the Early Detection of Lung Cancer and the Chinese Society of Clinical Oncology (Taiwan) on Lung Cancer, Taiwan, Taipei, 12/09-16/92.
- Marion Merrell Dow Research Institute Symposium, Growth Factors in Lung Cancer, Cincinnati, OH 01/06-08/93.
- NCI Workshop on Chemoprevention of Premalignant Lesions of the Upper Aerodigestive Tract, New Techniques for Early Lung Cancer Detection, Amelia Island, FL, 02/10-14/93.
- 4th IASLC Lung Tumor Biology Workshop, Antibodies for the Early Detection of Lung Cancer, Airlie, VA, 04/13-16/93.

- 2nd International Cancer Chemoprevention Conference, Berlin, Germany, 04/26/93-05/01/93.
- American Association of Cancer Research, Discussant, Impact of Biomarkers for the Chemoprevention and Early Detection of Lung Cancer, Orlando, FL, 05/16-21/93.
- United Kingdom Coordinating Committee for Cancer Research, Directions in the Research for Effective Lung Cancer Screening, Lung Cancer Subcommittee, London, England, 06/11-12/93.
- American College of Chest Physicians, Annual Scientific Assembly, Lung Cancer: Early Diagnoses, Orlando, FL 10/24/93.
- International Association for the Study of Lung Cancer. Prevention Workshop, Barriers to Progress in Lung Cancer Prevention Research, Potomac, MD 11/08/93.
- Harvard Medical School, Multimodality Therapy of Chest Malignancies Course. Molecular Markers in Early Detection: New Screening Tools. Boston, MA 04/07-09/94.
- District of Columbia General Hospital, Medical Grand Rounds. Strategies for More Effective Approaches to Early Cancer Detection. Washington, D.C. 06/01/94.
- IASLC - 7th World Congress, Symposium: Applications of Biomarkers for Lung Cancer Early Detection; Meet the Professor: Pulmonary Issues with Prevention. Colorado Springs, Colorado. 06/29/94.
- European Lung Cancer Centre, New Approaches to Lung Cancer Early Detection, Liverpool, England, 07/15/94.
- Yonsai Prevention Symposium, Applications of Biomarkers for the Early Detection of Lung Cancer. Seoul, Korea, 09/15/94.
- Genzyme, Inc., Seminar: Early Detection of Lung Cancer, Cambridge, Massachusetts, 09/22/94.
- Cancer Chemopreventive Agents DCPC, NCI Workshop: Drug Development Status and Future Prospects, Princeton, New Jersey, 10/22/94.
- Early Detection Sputum Studies, Lung Cancer Strategies for the 21st Century, University of Toronto, Canada, September 30, 1995.
- New Direction in Early Lung Cancer Management, European Lung Cancer Center of Excellence, Liverpool, United Kingdom. January 21, 1996.
- Designing for the Research Ethos. NIH Symposium on Research and Development Facilities Construction. Bethesda, MD. March 5, 1996.
- New Approaches to the Integrated Management of Early Lung Cancer. Keynote Address. University of Southern California Symposium of Integrated Management of Lung Cancer. Pasadena, CA. May 11, 1996.
- Molecular Application of Early Detection of Lung Cancer. American Thoracic Society 1996 International Conference. Symposium on Clinical Topics in Pulmonary Medicine. New Orleans, Louisiana. May 12, 1996.
- Integration New Approaches to the Detection and Intervention With Early Lung Cancer. IASLC Workshop, Elsinore, Denmark, June 25, 1996.
- Approach to Early Cancer Detection, Finsen Center, Rigshospitalet, Copenhagen Denmark, June 27, 1996.
- Early Intervention to Control Lung Cancer, Current Aspects of Lung Cancer, University of Liverpool, June 28, 1996.
- Chemoprevention of Early Lung Cancer, University of Maryland Cancer Center, Baltimore, MD, October 7, 1996.
- Direct Airway Delivery of Retinoids to Preinvasive Lung Cancer, Hoffmann-LaRoche Ltd, Basel, Switzerland, October 18, 1996.

- Epithelial-directed vs. Systemic-Directed Prevention and Growth Factor Signal Transduction. IASLC/INSERM Biological Basis of Lung Cancer Prevention Workshop, Nancy, France, October 22, 1996.
- New Approaches to the Management of Early Lung Cancer. University of Navarra, Pamplona, Spain, October 24, 1996.
- Integrated Approach to the Management of Early Lung Cancer. University of West Virginia, Morgantown, WV, November 15, 1996.
- Lung Cancer Early Detection. American Medical Center, Denver CO. February 18, 1997.
- Study of the Chemoprevention of Lung Cancer by Aerosol Therapy. Guest Lecturer. Centre De Recherche Louis-Charles Simard, Institut Du Cancer De Montreal, Montreal, Canada, April 4, 1997.
- Lung Cancer, Taking Control: National Video Conference. Panelist, Bethesda, MD, May 8, 1997.
- National Coalition of Cancer Research Congressional Prevention Research Briefing, New Approaches to Early Lung Cancer Management, Raeburn Bldg, Washington D.C., June 20, 1997.
- Poster Review Lung Cancer Biology, 8th World Conference on Lung Cancer, Dublin, Ireland, August 11, 1997.
- Overview of Early Lung Cancer Detection, Biology Symposium, 8th World Conference on Lung Cancer, Dublin, Ireland, August 12, 1997.
- Meet the Professor, Early detection, 8th World Conference on Lung Cancer, Dublin, Ireland, August 13, 1997.
- Early Detection and Prevention of Primary Lung Cancer, Workshop on Lung Cancer. Alliance for Lung Cancer Advocacy, Support and Education, Bethesda, MD, September 12, 1997.
- Screening for Lung Cancer in High Risk Populations/Chemoprevention, Cancer Center Grand Rounds, Cleveland Clinic Foundation, Cleveland, Ohio, Sept 19, 1997.
- Overview: Tumor Biology and Physiology, Potential Role of Non-Invasive Tissue Characterization, Advisory Council on Optical Imaging Technology, Office on Women's Health, DHHS, Washington D.C., Oct 24, 1997
- Research Opportunities with Early Cancer Management, National Coalition for Cancer Research Congressional Briefing, US Capitol Bldg, Washington D.C. Feb 5, 1998
- Genetic Mechanisms of Lung Carcinogenesis, United States-Japan Workshop on the Genetic Analysis of Cancer Progression, Bethesda, MD, February 14, 1998
- Integrated Early Lung Cancer: Field Cancerization and the Implications for the Management of Early Cancer, M.D. Anderson Cancer Center Grand Rounds, Houston, TX, February 24, 1998.
- Integrated Approach to the Care of Early Lung Cancer. Thoracic Oncology Update, Harvard University, March 13, 1998
- New Strategies for the Diagnosis and Prevention of Pre-Invasive Lung Cancer, NIH Grand Rounds, April 22, 1998
- “Ask the Expert”, Lung Cancer, American Association of Cancer Research Public Forum, The March, Washington DC, September 26, 1998
- Management of Pre-Invasive Lung Cancer. Grand Rounds, Instituto Europeo di Oncologia, Milan, Italy, December 8, 1998
- Considerations in Developing Successful Population-based Molecular Screening and Prevention of Lung Cancer, International Conference on Prevention and Early Diagnosis of Lung Cancer. Varese, Italy, December 10, 1998
- Isotretinoin Aerosol for Chemoprevention: Medical and Scientific Basis, Hoffmann-La Roche Ltd, Basel, Switzerland, December 14, 1998

- Biological Targets for *In Vivo* Functional Imaging. Conference of the Joint Working Group on Quantitative *In Vivo* Functional Imaging in Oncology. USPHS Office on Women's Health and the NCI, Arlington, VA, January 8, 1999.
- Integrated Approach to the Management of Pre-Invasive Lung Cancer. Kaplan Comprehensive Cancer Center, NYU Medical Center, New York, NY, February 3, 1999.
- Molecular Biology and its Clinical Implications. Thai Society of Clinical Oncology, Chiangmai, Thailand, February 24, 1999.
- Lung Cancer Prevention in 2010: Where Can We Be? Workshop on Lung Cancer. Alliance for Lung Cancer Advocacy, Support and Education and the University of Colorado, Denver, CO, March 12, 1999.
- Epidemiology and Early Detection of Lung Cancer, Ireland Cancer Center Symposium on Lung Cancer, Case Western Reserve University, Cleveland, OH, March 26, 1999.
- "Ask the Expert" Lung Cancer, American Association for Cancer Research Public Forum, Philadelphia, PA, April 10, 1999.
- Implications of Cellular Detection of Early Lung Cancer to the Management of Pre Invasive Lung Cancer. Plenary Session 4th Taiwan Joint Cancer Conference, Taipei, Taiwan. April 17, 1999.
- Sputum Immunocytochemical Detection of Lung Cancer. Planning Meeting for Conference for Consensus for Screening for Lung Cancer, Cornell University Medical Center, NY, NY. April 28, 1999.
- Considerations with Sputum Immunocytochemical Detection of Lung Cancer. Division of Cancer Prevention, NCI Preliminary Meeting to Discuss Trial Issues with Spiral CT Screening for Lung Cancer. Bethesda, MD, April 29, 1999.
- Pulmonary Oncology, Therapeutic Application of Retinoids and Nuclear Hormone Receptors, Roche Biosciences Mini-Symposium, Palo Alto, CA, May 10, 1999.
- Integrated Management of Pre Invasive Lung Cancer, Fred Hutchinson Prevention Research Symposium, Seattle, WA, June 23, 1999
- Application of Molecular Biology for Early Lung Cancer Detection, 6th Central European Lung Cancer Conference, Budapest, Hungary, Sept 2, 1999.
- Management of Screened Identified Lung Cancer, First International Conference on Screening for Lung Cancer. Weill Medical College of Cornell University, New York, NY, October 2, 1999.
- Impact of Current Biological Knowledge on the Treatment of Preinvasive Lung Cancer. Major Symposium, European Respiratory Society, Madrid, Spain October 13, 1999.
- Early Detection of Lung Cancer- A Feasible Goal, Overview-State of Early Lung Cancer Management Research. Roy Castle Molecular Biomarker Workshop, Liverpool, U.K., October 15,16, 1999.
- Participant, Meeting on Surrogate Endpoints, UICC/ACS Workshop, Divonne-les-Bains, France, November 14, 15, 1999.
- Panelist, Advisory Committee on Chemoprevention, Searle, Pfizer, CRFA Forum. Washington D.C., November 20, 1999.
- Management of Screen-Identified Lung Cancer, Advisory Panel, Cytoc Corporation, Boxborough, MA, Dec 12, 1999.
- New approaches to the prevention of oral cancer. Georgetown University ENT Grand Rounds, February 24, 2000.
- Integrated Approach to the Preventive Management of Preinvasive Aerodigestive Cancer. Cancer Center Grand Rounds, University of Maryland Cancer Center, Baltimore, MD March 13, 2000.

- “Ask the Expert”, Lung Cancer, American Association of Cancer Research Public Forum, San Francisco, CA, April 2, 2000.
- Non Small Cell Lung Cancer: Screening, New Imaging and Prevention. Educational Session: American Society of Clinical Oncology, New Orleans, May 22-3, 2000.
- Basic and Translational Issues in Molecular Detection of Early Lung Cancer, Plenary Session Lecture, 17th Annual Meeting of the Japanese Association for Chest Surgery, Tokushima, Japan, May 25, 2000.
- Controversies in Detection and Treatment of Early Lung Cancer: Barriers, Misconceptions and Logistical Nightmares. Early Lung Cancer 2000: Strategic Initiative for Molecular Detection and Novel Treatments Karmanos Cancer Institute, Wayne State University, Detroit, MI, June 17, 2000
- Translational Approaches to Aerodigestive Cancers. National Institutes of Health Clinical Center Grand Rounds, Bethesda, MD, July 19, 2000
- Molecular Targets for Population-based Lung Cancer Screening. Plenary Session Lecture, 9th World Conference on Lung Cancer, Tokyo, Japan, Sept 12, 2000
- Screening for Early Lung Cancer, European Conference on Perspectives in Lung Cancer, Lisbon, Portugal, November 4, 2000.
- Research Opportunities with Lung Cancer Screening, National Coalition for Cancer Research Congressional Briefing, Rayburn Capitol Bldg, Washington D.C. Feb 15, 2001.
- Asks the Experts: Lung Cancer, American Association of Cancer Research Annual Meeting, New Orleans, Louisiana, March 24, 2001.
- Leukotrienes in the Pathogenesis of Lung Cancer. American Thoracic Society Symposium, San Francisco, CA, May 22, 2001.
- Commencement Address. Northwest Catholic High School, Hartford, CT, June 6, 2001
- Combining Genotyping, Spiral CT and Molecular Diagnostics into an Early Lung Cancer Strategy, Keynote Talk. Second International Lung Cancer Molecular Biomarkers Workshop, Liverpool, United Kingdom, June 28, 2001.
- Strategic Planning for the Future of Cancer Prevention: Background and Context. Cancer Research of America Board of Directors Retreat. Wye River, MD, June 3/4, 2001.
- Overview of NCI Intramural Translational Research in Upper Aerodigestive Cancers, Ninth Annual SPORE Meeting, Lung Cancer Breakout Group, June 15, 2001.
- Perspectives on Screening and Early Diagnosis. International Association for Lung Cancer Fourth International Conference on Prevention and Early Detection of Lung Cancer. Reyjavik, Iceland, August 9, 2001.
- Role of Retinoids in Lung Cancer Prevention, Assembly Symposium, European Respiratory Society Meeting, Berlin Germany, September 26, 2001.
- Moving to the routine management of pre symptomatic lung cancer, International Conference on Non Small Cell Lung Cancer: Standards and New Trends in Diagnosis and Therapy. Bialystok, Poland, October 5, 2001.
- Reducing Lung Cancer Mortality Action for the New Millennium, Third International Conference on Screening for Lung Cancer, Cornell University Medical Center, New York, New York, October 27, 2001
- Screening for Early Lung Cancer, European Perspectives in Lung Cancer, London, England, December 7,8th, 2001
- Supporting Prevention Research During Promising Times, CRFA Associates Council. McLean, VA, January 16th, 2002.

- Molecular Strategies for Chemoprevention. Second Annual Opinion Leader Symposium, “Targeted Therapies in the Treatment of Lung Cancer, Pheonix, Arizona, February 28th, 2002
- New Delivery Tools and New Therapeutic Strategies, Fifth International Prevention Workshop, IASLC, Torino, Italy, March 15th, 2002.
- Lung Cancer Screening, Journal Watch Audio (13:7), Massachusetts Medical Society, April 1, 2002.
- Research Perspectives with Lung Cancer Screeening, Meeting the Expert, American Association of Cancer Research Annual Meeting, San Francisco, CA, April 8th, 2002.
- Lung Cancer Screening: Meet the Professor, American Society of Clinical Oncology, Tampa, FL, May 19&21, 2002
- Perspectives on Population-based Early Lung Cancer Management, UICC Congress, Oslo, Norway, July 5, 2002.
- Potential of Imaging for Early Cancer: Clinical Perspective, Frontiers in Cancer Prevention Research, American Association of Cancer Research, Boston, MA, October 16, 2002. Integrated Approach to the Routine Management of Lung CA, First International Lung Conference, Beijing, China, October 28, 2002.
- Randomized, double blind, placebo controlled Phase IIB study of the cyclooxygenase inhibitor, Ketorolac as an oral rinse for oral leukoplakia. NICHD/NIDCD/NCI Squamous Biology Retreat, Gaithersburg, MD, December 5, 2002.
- The Need for Molecularly Targeted Chemoprevention Trials, First IASLC/ASCO International Conference: Molecularly Targeted Therapies in Lung Cancer. Marbella, Spain, Jan 18, 2003.
- The strategic use of protein analysis techniques in developing new tools for the management of early lung cancer. Clinical Proteome Symposium, Tokyo Medical University, Tokyo, Japan. April 10, 2003.
- Overview of Progress in Lung Cancer Research, Public Health and Medical Reporting: A Workshop for Journalists of the Americas, Fogarty International Center and the International Center for Journalists, Bethesda, MD, October 22, 2003
- New Research Opportunities with Early Lung Cancer, Congressional Briefing on Women and Lung Cancer, Sponsored by American Cancer Society, Society for Women’s Health Research and ALCASE Dirksen Office Building, Washington DC, November 13, 2003
- Proteomics, Overview of Recent Progress, 44th Annual Meeting of Japanese Lung Cancer Society, Tokyo, Japan, November 6th, 2003
- Early Detection of Lung Cancer, IASLC Workshop Tokyo, Japan November 7th, 2003
- Early Detection of Lung Cancer, Does it Matter? Sixth National Lung Cancer Symposium, Amsterdam, Netherlands, January 22, 2004
- Looking over the Horizon with Lung Cancer Care, Lilly Oncology Research Meeting, Indianapolis, IN, February 6, 2004.
- Management of Pre Invasive Lung CA, NIH Office of Women’s Health, Bethesda, MD March 12, 2004
- Early Detection of Lung Cancer: Role of Prospective Studies in High Risk Populations and Experimental Molecular Imaging in Lung Cancer Detection and Treatment Assessment, 1st Annual Latin American Conference on Lung Cancer, Sao Paulo, Brazil, March 18 & March, 19, 2004
- Update on Early Lung Cancer Detection, Scientist to the Survivor Program, American Association of Cancer Research, Orlando, FL, March 26, 2003.

- Overview and Meeting Goals. Application of High Resolution CT Imaging Data to Lung Cancer Drug Development, Cancer Research and Prevention Foundation Workshop, Washington, DC - April 15-16, 2004.
- Current Status of CT-based Screening Validation, 12th International Conference on Screening for Lung Cancer: Nara, Japan, April 7, 2005.
- Overview and Meeting Goals, Application of High Resolution CT Imaging Data to Lung Cancer Drug Development, Cancer Research and Prevention Foundation Workshop, Annapolis, MD - April 28, 29, 2005.
- Sub-millimeter Imaging Using Spiral CT Technology to Manage Early Lung CA, ASCO-OSA Special Lecture. Orlando, FL May 14, 2005.
- Prevention and Early Detection in Lung Cancer, Plenary Session, European Society of Medical Oncology, Budapest, Hungary, June 4, 2005.
- Novel Imaging Strategies for Screening for Lung Cancer, The Second Annual Symposium on The Future of Lung Cancer A Translational Focus. Washington, DC November 11-12, 2005.
- Early Lung Cancer Detection: Complementing Primary Prevention. Catch Your Breath with the American Lung Association of Metropolitan Chicago, Chicago, IL December 1, 2005.
- Spiral CT - an Emerging Tool for Public Health. Keynote Lecture: Clinical Concepts in Lung Cancer 2006: Early Detection Advanced Therapies Case Presentations. Englewood, CO March 4, 2006.
- Overview: Lung Cancer Research. Lung Cancer Alliance 1st Annual National Meeting Advocate Conference. March 27, 2006.
- Overview and Meeting Goals. Application of High Resolution CT Imaging Data to Lung Cancer Drug Development. Cancer Research and Prevention Foundation. Annapolis, MD, April 19, 2006.
- All Smokers Should Be Screened for Lung Cancer. J Mulshine vs. D Aberle. 7th International Lung Cancer Congress. Maui, HI, June 29, 2006.
- Spiral CT – Imaging and Its Role in Diagnosis and Treatment of Lung Cancer. Advances in Oncology Emerging Trends & Quality Issues. New York City, NY, April 29, 2006.
- Lung Cancer Screening. Fall Midwest Lung Cancer Conference, Omaha, NE, September 15, 2006.
- Radiation Therapy and Screening: Status of Early Detection. 2nd Annual New York Lung Cancer Symposium. New York City, NY, November 7, 2006.
- Screening and Supportive Care: Screening of Lung Cancer. Current Trends in Lung, Head & Neck Cancer. New York City, NY February 17, 2007.
- Lung Cancer Screening as a 21st Century Public Health Strategy, 2007 Scientific Lecture Series, Chicago Thoracic Society, American Lung Association of Metropolitan Chicago, March 13, 2007
- Spiral CT. OSI Pharmaceutical, Inv/Rush University Medical Center Collaboration Meeting. Farmingdale, NY, July 23, 2007.
- Lung CA Screening as a Public Health Infrastructure. 2007 Center for Disease Control Cancer Conference, Atlanta, GA, August 2007
- Early Detection of Lung Cancer: Where Are We Going? Young Investigators Day, 12th World Conference on Lung Cancer, Seoul, Korea, September 2-6, 2007.
- Highlight of the Day: Prevention and Epidemiology. 12th World Conference on Lung Cancer, Seoul, Korea, September 2-6, 2007.
- Global Lung Cancer Coalition Symposium: Engaging Patients and the Lung Cancer Community in Improving Patient Outcomes, 12th World Conference on Lung Cancer, Seoul, Korea, September 2-6, 2007.

- Screening on Lung Cancer: An Overview. International Lung Cancer Congress, New York City, NY, October 5-6, 2007.
- Prevention and Early Detection of Lung Cancer. Population-base Screening of Lung Cancer: The Molecular Age? 5th Annual Atlanta Lung Cancer Symposium. Atlanta, GA October 26, 2007.
- Update of the Current State: Lung CA Screening. Nebraska Lung Cancer Symposium, Lincoln, NE, January 22, 2008.
- Plenary Presentation, Shizuoka Cancer Center Conference: Lung Cancer Research in the 21st Century, Shizuoka, Japan, January 15, 2008.
- The Use of Quantitative Imaging as a Strategy for Early Lung Drug Development, 15th World Congress of Bronchology, Tokyo, Japan, April 1, 2008.
- ASCO Professional Development: Government to Academia: Mid Career Changes: Why? How, and When? 2008 ASCO Annual Meeting, Chicago, Illinois. June 1, 2008.
- Lung Cancer Drug Development: Measuring Progress. ASCO/ASTRO/IASLC, 2008 Chicago Multidisciplinary Symposium in Thoracic Oncology, Nov, 2008.
- Plenary Lecture, C3 Meeting Click Conference on Research Administrative Software Development, Chicago, Illinois, May, 2010
- The Learning Healthcare System, 23 I-ELCAP Conference, New York, NY, October, 2010
- Plenary Lecture, 2nd Annual NCI-Latin American Cancer Research Network Meeting, Rio de Janeiro, Brazil, November 12, 2010.

Peer-Reviewed Publications:

- 1) **Mulshine JL**, Lucas F, and Clough J: Platelet Bound Ig G in Systemic Lupus With and Without Thrombocytopenia. *J Immunol Methods* 45:275, 1981.
- 2) **Mulshine JL**, Cuttitta F, Bibro M, Fedorko J, Little C, Fargion S, Carney D, Gazdar A, and Minna JD: Murine Monoclonal Antibodies Which Distinguish Non-Small Cell from Small Cell Lung Cancer. *J Immunol* 131:497, 1983.
- 3) **Mulshine JL**, Tubbs R, Scheeler L, and Gifford R: The Significance of the Association of Pheochromocytoma with Von Hippel Landau's Disease and Pancreatic Apudoma. *Amer J Med Sci* 288:212, 1984.
- 4) **Mulshine JL**, Makuch R, Johnston-Early A, Matthews M, Carney D, Ihde D, Cohen M, Bates H, Dunnick N, Minna JD, and Bunn P: Diagnostic Significance of Liver Metastases in Small Cell Lung Cancer. *J Clin Oncol* 7:733-341, 1984.
- 5) Rosen S, **Mulshine JL**, Cuttitta F, Fedorko J, Carney D, Gazdar A, and Minna JD: Analysis of Human Small Cell Lung Cancer Differentiation Using a Panel of Rat Monoclonal Antibodies. *Cancer Res* 44:2052-2061, 1984.
- 6) Combs S, Marder R, Minna JD, **Mulshine JL**, Polovina M, and Rosen S: Immunohistochemical Localization of the Immunodominant Carbohydrate Antigen Lacto-N- Fucopentaose III in Normal Adult and Fetal Tissue. *J. Histochem Cytochem* 32:982-988, 1984.
- 7) Doyle A, Martin W, Gazdar A, Carney D, Nau M, Martin S, Cuttitta F, **Mulshine JL**, Bunn P, and Minna JD: Markedly Decreased Expression of Class I Histocompatibility Antigens in Human Small Cell Lung Cancer. *J Exp Med* 161:1135, 1985. PMCID: PMC2187608
- 8) Gupta P, Myers J, Baylin S, **Mulshine JL**, Cuttitta F, and Gazdar A: Improved Antigen Detection in Ethanol-Fixed Cytologic Specimens: A Modified Avidin-Biotin-Peroxidase Complex (ABC) Method. *Diagnostic Cytopath* 1:133-136, 1985.

- 9) Cuttitta F, Carney D, **Mulshine JL**, Moody T, Fedorko J, Fischler A, and Minna JD: Bombesin Like Peptides Can Function as Autocrine Growth Factors in Human Small Cell Lung Cancer. *Nature* 316:823-826, 1985.
- 10) Cuttitta F, Carney DN, **Mulshine JL**, Moody T, Fedorko J, Fischler A, and Minna JD: Bombesin-Like Peptides Can Function as an Autocrine Growth Factor in Human Small Cell Lung Cancer. *Cancer Surv* 4:707-728, 1985.
- 11) **Mulshine JL**, Ihde D: Letter to the Editor: The Will Rogers Phenomenon-Additional Evidence. *N England J Med* 313:1291, 1985.
- 12) Carrasquillo J, Bunn P, Keenan A, Reynolds J, Schroff R, Foon K, Ming H, Gazdar A, **Mulshine J**, Oldam R, Parentess P, Horowitz M, Eddy J, James P, Larson Radioimmunodetection of Cutaneous T-cell lymphoma with ¹¹¹In-T101 Monoclonal Antibody. *N Engl J Med* 315:363-680, 1986.
- 13) Spitalnik AS, Spitalnik P, Dubois K, **Mulshine JL**, Magnani J, Cuttitta F, Civan CI, Minna JD, and Ginsberg V: Glycolipid Antigen Expression in Human Lung Cancer. *Cancer Res* 46:4751-4755, 1986.
- 14) Hsu S, Huang LC, Hsu P, Ge Z, Ho Y, Cuttitta F, **Mulshine JL**: Biochemical and Ultrastructural Study of Leu M1 Antigen in Reed-Sternberg Cells - Comparison with Granulocytes and Interdigitating Reticulum cells. *J Natl Cancer Inst* 77:363-370, 1986.
- 15) Fargion S, Carney D, **Mulshine JL**, Rosen S, Bunn P, Jewett DP, Cuttitta F, Gazdar A, and Minna JD: Heterogeneity of Cell Surface Antigen Expression of Human Small Cell Lung Cancer Detected by Monoclonal Antibodies. *Cancer Res* 46:2633-.2638, 1986.
- 16) **Mulshine JL**, Glatstein E, Ruckdeschel J: Treatment of Non-Small Cell Lung Cancer. *J Clin Oncol* 4:1704, 1986.
- 17) Minna JD, Battey JF, Brooks BJ, Cuttitta F, Gazdar AF, Johnson BE, Ihde DC, LeBacq AM, **Mulshine JL**, Nau MM, Oie HK, Sausville EA, Seifter E, Vinocour M. Molecular Genetic Analysis Reveals Chromosomal Deletion, Gene Amplification, and Autocrine Growth Factor Production in the Pathogenesis of Human Lung Cancer. *Cold Spring Harbor Symposia On Quantitative Drug Delivery* 51:843-853, 1986.
- 18) Larson SM, Carrasquillo JA, Reynolds JC, Hellstrom I, Hellstrom KE, **Mulshine JL**, Mattis LE: Therapeutic Applications of Radiolabeled Antibodies: Current Situations and Prospects. *Nucl Med Biol* 13:207-213, 1986.
- 19) **Mulshine JL**, Keenan A, Carrasquillo J, et al: Immunolymphoscintigraphy of Pulmonary and Mediastinal Lymph Nodes: A New Approach to Lung Cancer Imaging. *Cancer Res* 47:3572-3576, 1987.
- 20) Keenan A, Weinstein J, **Mulshine JL**, et al.: Evaluation of Lymphoma by Immunolymphoscintigraphy in Patients After Subcutaneous Injection of Indium-111-Labeled T101 Monoclonal Antibody. *J Nucl Med*, 28:42-46, 1987.
- 21) Carrasquillo J, **Mulshine JL**, Bunn P, et al: Tumor Uptake of In¹¹¹ Monoclonal Antibody is Superior to I¹³¹-T101 in Cutaneous T-cell Lymphoma. *J Nucl Med* 28:281-287, 1987.
- 22) Doyle LA, Cuttitta F, **Mulshine JL**, Bunn PA, Minna JD: Markedly Different Antibody Responses to Immunized Small Cell and Non-Small Cell Lung Cancer Cells. *Cancer Res* 47:5009-5013, 1987.
- 23) Nakanishi Y, **Mulshine JL**, Kasprzyk P, Natale RB, Maneckjee R, Avis I, Treston AM, Gazdar AF, Minna JD, Cuttitta F: Small Cell Lung Cancer Cells Autostimulate their Growth Via an Insulin-like Growth Factor-I Activity: Evaluation of 4 Cell Lines. *J Clin Invest* 82:354-359, 1988. PMID: PMC303516

- 24) Makuch R, Rosenberg P, **Mulshine JL**: Identifying Prognostic Factors in Binary Outcome Data: An Application Using Liver Function Tests and Age to Predict Liver Metastases. *Stat Med* 7:843-856, 1988.
- 25) Nakanishi Y, Cuttitta F, Kasprzyk PG, Avis I, Steinberg SM, Gazdar AF, **Mulshine JL**: Growth Factor Effects on Small Cell Lung Cancer Cells Using a Colorimetric Assay: Can a Transferrin-Like Factor Mediate Autocrine Growth. *Exper Cell Biol* 56:74-85, 1988.
- 26) Kasprzyk PG, Cuttitta F, Avis I, Nakanishi Y, Treston A, Wong H, Walsh JH, **Mulshine JL**: Solid Phase Peptide Quantitation Assay Using Labelled Monoclonal Antibody and Glutaraldehyde Fixation. *Anal Biochem* 174:224-234, 1988.
- 27) Linnoila RI, **Mulshine JL**, Steinberg SM, Funa K, Matthews MJ, Cotelingham J: Neuroendocrine Differentiation in Endocrine and Non-endocrine Lung Carcinomas. *Am J Clin Path* 90:641-652, 1988.
- 28) Tockman MS, Gupta PK, Myers JD, Frost JK, Baylin SB, Gold EB and **Mulshine JL**: Sensitive and Specific Monoclonal Antibody Recognition of Human Lung Cancer Antigen on Preserved Sputum Cells: A New Approach to Early Lung Cancer Detection. *J Clin Oncol* 6:1685-1693, 1988.
- 29) Gazdar AF, Helman L, Israel M, Russell E, Linnoila RI, **Mulshine JL**, Schuller H, Park J. Expression of Neuroendocrine Cell Markers L-Dopa Decarboxylase Chromogranin A and Dense Core Granules in Human Tumors of Endocrine and Non-endocrine Origin. *Cancer Res* 48:4078-4082, 1988.
- 30) Tsai CM, Gazdar AF, Venzon DJ, Steinberg SM, Dedrick RL, **Mulshine JL**, and Kramer BS. Is There In Vitro Synergy Between Etoposide and Cisplatin? *Cancer Res* 49:3290-3297, 1988.
- 31) Trepel JB, Moyer JD, Cuttitta F, Frucht H, Coy DH, Natale RB, **Mulshine JL**, Jensen RT, Sausville EA. A Novel Bombesin Receptor Antagonist Inhibits Autocrine Growth Signals in a Small Cell Lung Carcinoma Cell Line. *Biochem Biophys Res Comm* 156: 1383-1389, 1988.
- 32) Kasprzyk PG, Cuttitta F, Treston AM, Avis I, Nakanishi Y, Wong H, Walsh JH, and **Mulshine JL**. Chemical Considerations of Solid-Phase Matrix Interactions Leads to Improved Quantitation of Neuropeptides. *Ann NY Acad Sci* 547:41-53, 1988.
- 33) **Mulshine JL**, Avis I, Treston AM, Mobley C, Kasprzyk PG, Carrasquillo JA, Larson SM, Nakanishi Y, Merchant B, Minna JD and Cuttitta F: Clinical Use of a Monoclonal Antibody to Bombesin-Like Peptide in Patients with Lung Cancer. *Ann N Y Acad Sci* 547:360-372, 1988.
- 34) Weinstein JN, Eger RR, Covell DG, Black CDV, **Mulshine JL**, Carrasquillo JA, Larson SM, and Keenan AM: The Pharmacology of Monoclonal Antibodies. *Ann NY Acad Sci*. Vol. 507: 199-210, 1987
- 35) Lai SL, Goldstein L, Gottesman M, Paston I, Tsai CM, Johnson B, **Mulshine JL**, Ihde D, Kayser K, Gazdar A: MDR1 Gene Expression in Lung Cancer. *J Natl Cancer Inst* 81:1144-1150, 1989.
- 36) **Mulshine JL**, Treston AM, Natale RB, Kasprzyk PG, Avis I, Nakanishi Y, and Cuttitta F. Autocrine Growth Factors as Therapeutic Targets in Lung Cancer. In *Chest* 96:31-34, (Suppl), 1989.
- 37) Treston AM and **Mulshine JL**. Beyond Transcriptional Events. *Nature* 337:406, 1989.
- 38) Treston AM, Vicchio D, **Mulshine JL**, and Yergey AL: High Performance Liquid Chromatography/Thermospray Mass Spectrometric Analysis of a-Carboxyamido Amino Acids. *J Chromatography* 474:187-195, 1989.
- 39) **Mulshine JL**, Tockman MS, Smart C: Considerations in the Development of Lung Cancer Screening Tools. *J Natl Cancer Inst* 81:900-906, 1989.
- 40) Kyogashima M, **Mulshine JL**, Linnoila RI, Jensen S, Magnani J, Nudelman E, Hakomori S,

- Ginsberg V: Antibody 624H12, Which Detects Lung Cancer at Early Stages Recognizes a Sugar Sequence in Glycosphingolipid Difucosylneolactonorhexaosylceramide (Difucosylated Lewis X). *Arch Biochem Biophys* 275:309-314, 1989.
- 41) **Mulshine JL**, Avis I, Treston AM, Kasprzyk PG, Nakanishi Y, Mobley C, Carrasquillo JA, Larson SM, Merchant B, Cuttitta F. *In Vivo* Diagnosis and Therapy of Human Tumors with Monoclonal Antibodies Selection of Antibodies and Preliminary Clinical Studies in Small Cell Carcinoma of the Lung. *Nucl Med Biol* 16:159-162, 1989.
 - 42) **Mulshine JL**: Bronchial Epithelial Changes in the Early Detection of Lung Cancer: Application of Monoclonal Antibodies in the Management of Lung Cancer: *J Jpn Soc Bronchology* 12:569-575, 1990.
 - 43) Fridman R, Giaccone G, Kanomoto T, Martin FR, Gazdar AF, and **Mulshine JL**: Reconstituted Basement Membrane (Matrigel) and Laminin Can Enchange the Tumorigenicity and the Drug Resistance of Small Cell Lung Cancer Lines. *Proc Natl Acad Sci* 87:6698-6702, 1990. PMCID: PMC54604
 - 44) Phelps R, Dearing M, Serber M, **Mulshine JL**: Accuracy and Uniformity of the Collection of Data in Cancer Clinical Trials. *J Natl Cancer Inst* 82:1377-1378, 1990.
 - 45) Dearing M, Steinberg S, Phelps R, Anderson M, **Mulshine JL**, Ihde D, Johnson B: Outcome of Patients with Small Cell Lung Cancer: Effects of Changes in Staging Procedures and Imaging Technology on Prognostic Factors Over 14 Years. *J Clin Oncol* 8:1042-1049, 1990.
 - 46) Dmitrovsky E, Seifter EJ, Gazdar AF, Tsai CM, Edison M, Brantley P, Veach SR, Batist G, Ihde DC, and **Mulshine JL**: A Phase II Trial of Carboplatin (CBDCA) in Small Cell and Non-Small Cell Lung Cancer with Correlation to In Vitro Analysis of Cytotoxicity. *Am J Clin Oncol* 13:285-289, 1990.
 - 47) Gazdar AF, Linnoila RI, Kurita Y, Oie HK, **Mulshine JL**, Clark JC, Whitsett JA: Peripheral Airway Cell Differentiation in Human Lung Cancer Cell Lines. *Cancer Res* 50:5481-5487, 1990.
 - 48) **Mulshine JL**: Biotech: No Scientific Adventurism. Letter to the Editor, *Washington Post* Apr 27:A18, 1990.
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